



# **Defense Supply Center Richmond**

## **Aviation Engineering Reliability and Sustainment Programs**

**Defense Logistics Agency  
Defense Supply Center Richmond**

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DSCR VE**

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***DLA's Aviation Supply & Demand Chain Manager***





# Mission

*DLA's Aviation Supply & Demand Chain Manager*

- Integrate engineering and technical solutions with DLA Integrated Supply Team efforts to deliver best value supplies and services to the warfighter.
- **Increase item *availability***
  - Sourcing solutions and alternatives
- **Improve item *reliability***
  - Fund, manage and field improved products
- **Generate *savings* to DoD**
  - Coordinate efforts with emphasis on life cycle cost savings across all aviation weapon systems



# Reliability Improvement Program



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**DLA/DSCR  
Initiated  
Program 2003**

**Services and  
DLA:  
Partners on  
194 Projects**

**Improved  
readiness and  
reduced  
life cycle costs**

- DSCR Manages DLA's Reliability Program for Aviation Supply Chain consumables
- Reliability improvements deliver maintenance benefits
- Flexibility to integrate across engineering, logistics and maintenance communities
- DLA and Services sharing costs; Services realize benefits



# Benefits to Services



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**FUNDED PROJECTS**

## Project Identification

- Customer Specific Need
- Technology Insertion Opportunities
- Cross-Platforms/Services



Increased System Readiness and Availability

**SAVINGS TO CUSTOMERS**

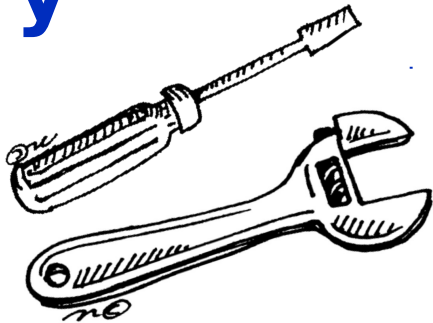
**More Reliable Parts**

- Fewer Replacements
- Fewer Inspections

**READINESS**

**Increased System Uptime: Reduce Logistic Tail**

**Safety**



**REDUCED MAINTENANCE**





# Typical Reliability Projects



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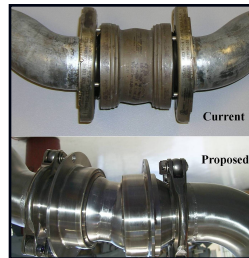
## AH-64 Main Rotor Blade Track and Balance



**Blade Tracking Wedges**

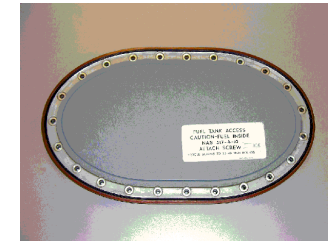
- **Transition Commercial Part to Military Use**

## F/A-18A-D Periseal



- **Redesign to eliminate O-Ring failure**

## KC-135 Fuel Access Cover



- **Modify cover to accommodate field replaceable seals**





# UH-60 OIL COOLER BEARING LIFE EXTENSION

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Manager*

## **Description:**

Bearings must be changed after 2500 hours.

## **Solution:**

Validate the monitoring capability that identifies condition of the bearing. Produce an Air Worthiness Release to extend or remove existing retirement life.

## **Benefits:**

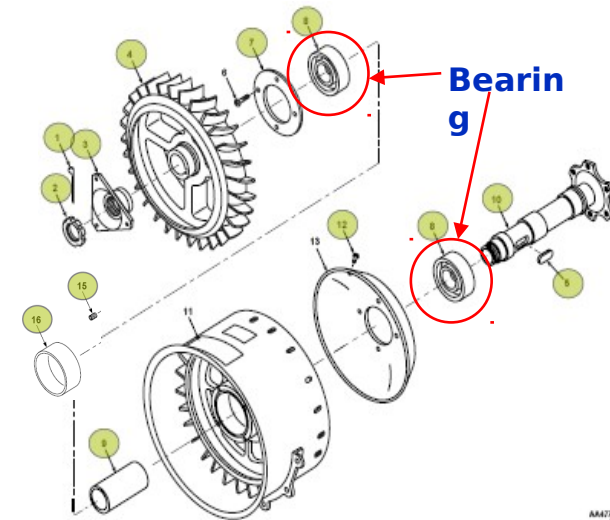
Supports the replacement of a Time Before Overhaul (TBO) or retirement policy through a Conditioned Based Maintenance (CBM) approach (Per DoD Directive 4151.18). Estimated savings of \$2.8M over ten years.

## **Logistic Approach:**

No new NSNs, existing NSNs would see a gradual decrease in demands (estimated at 10%). Multiple users (Army, Navy, Air Force).

## **Status:**

Flight data has been collected, analysis is underway.  
Effort scheduled for completion June 2008. UH-60 PM plans to equip 100 airframes per year with HUMS.



**Cooling Fan Assembly**

**Note: 73% DLA Supplied Parts**



# Services Funding



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## ARMY



**65 Projects**

**Funding \$25.7M**

**Estimated Savings  
\$286M**

## NAVY



**95 Projects**

**Funding \$21.9M**

**Estimated Savings  
\$564M**

## AIR FORCE



**34 Projects**

**Funding \$12.7M**

**Estimated Savings  
\$106M**

**COAST GUARD on board in FY06 with UID Part Marking Project**



# Source Development



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- Toolkit approach for best sourcing options for hard-to-procure or over-priced parts
  - Organic Manufacturing
  - Reverse Engineering
  - Replenishment Parts or Borrow Program
  - Castings & Forgings Program
  - Value Engineering Change Proposals
  - Battlefield Backorder Breakout Initiative (B3I)
- Evaluation of Source Approval Requests (SARs)
- Collaboration with Engineering Support Activity (ESA) to ensure part and/or source approval





# Research & Development



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## Mission

- Provide tools and methods to help DLA personnel improve delivery of parts and services

## Program Initiatives

- Planning Process Improvements
- Weapon System/Supply Chain Owner Improvements
- Tech Quality Process Improvements
- Supplier Collaboration Process Enhancements

Backorder Analysis

NSO Policies

Class-wide engineering changes



# Aviation Forging & Casting Assistance Team



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- DLA HQ funded Manufacturing Technology R&D program w/Cost-sharing between Industry Associations & DLA
- Provides solutions to technical and procurement problems on Aviation items with castings or forgings:
  - Sourcing, Tooling, Manufacturability, Technology Transfer, Seminars, etc.
- Identifying parts w/Cast or Forged content to improve solicitations and procurements



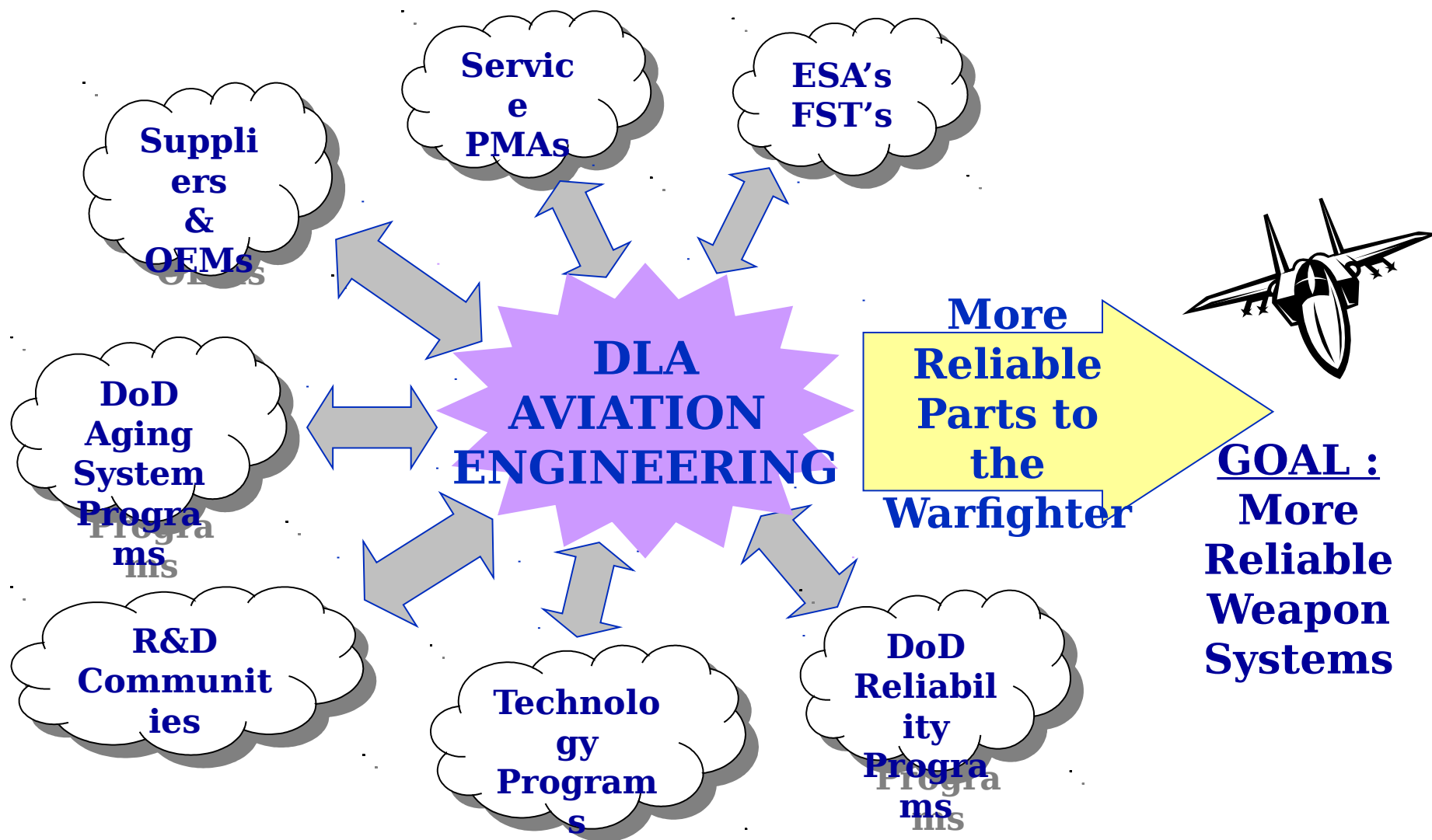
- Tooling
- Sources
- Tech Transfer





# Collaboration and Leverage Partnering for Best DoD Solutions

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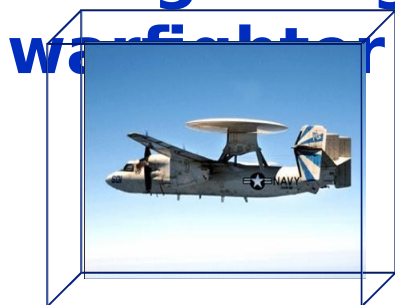


# Summary



*DLA's Aviation Supply & Demand Chain Manager*

- Relationships with Customers continue to grow
- Collaboration and leverage partnering - DLA, Services and Industry
- Integrating best value solutions for



✓ Technology Insertion  
✓ Multi-Platform Efforts  
✓ Cross-Service Projects  
✓ Sharing Costs  
✓ Generating Savings



**DLA Is In A Unique Position As An Integrator Across Services And Weapon Systems**